

GPS Vehicle Tracking Device User Manual

Vehicles IN YOUR HAND

Model: 101B/C101B



Thank you for choosing our products. We will make every effort to your security

101B support GSM network, /C101B support CDMA network.

V3.03 updated on 2009-7-13

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I) Overview

As a car owner, you concern about safety and security. If you are a business operator, you have to concern more: productivity, customer service, employees and assets.

We focus in developing and manufacture GPS tracking system and hardware. We would like to help you accomplish these.

You will know the vehicle's current position anywhere and anytime!

You can monitor the vehicles in 24 hours one day and 7 days a week. All the status will be report to you including: direction, speed, running time, etc. You will get the alarm report from device as soon as possible by cell phone, by computer, including: anti-steal, over speed, power alarm, towing, parking, SOS.

You can set a special zone for vehicles to alert you if they are enter or leaving this zone.

You can remote control your vehicle, fuel control, talk; listening in, lock/unlock the door,

You can check all the history data which is stored in the system and export the statistics report for mileage, alarms.



Application:

- **Taxi /buses management**
- **Special vehicles and heavy trucks Management**
- **Anti-theft security system for private vehicles**
- **Asset management**
- **Rent car management**
- **Private car safety and security**

II) Part list

NO	PHOTOES	NAME	QTY	SPEC	NOTE
1		Main Unit	1	80*53*25mm	black
2		GPS Antenna	1	5 meters	waterproof magnetic
3		GSM Antenna	1	3 meters	waterproof
4		Harness & Relay	1	1.5 meters	8 pin
5		Microphone	1	-	-
8	N/A	Manual CD	1	-	-

III) Installation

1) Getting started

Before installation, please check all the parts in package as the part list and make sure no part mentioned lost! If you found there's part lost, please contact with local agent.

● Step1 SIM card

Use a little stick to press the SIM card button and the frame will come out. Put the SIM card inside and keep metal side upward. Please make sure that the SMS function of the SIM card is available.



Warning: Please confirm the power is off during installation of SIM card. Or it maybe causes damage to SIM card.

● Step 2 Assemble the antennas

Connect the GPS and GPS ANT to their plug. Keep the GPS antenna where has good condition to receive the signals. For example, put it outdoor or near the window open to sky.

● Step 3 Power ON

User could power the unit with backup battery or extra power.

Backup battery: switch on the button on the main unit.

Extra power: support the power red (+) and black (-) 12V DC

When power is on, User could see the LED indicator blinking:

The red show GSM working; green shows GPS working.

At first, the RED will blink every second, which means it is searching the GSM network. After it connected, it will blink every three seconds. If there's phone call, the red will be keeping lighting. If there's GPRS data translating, it will blink very fast.

The green blinking means it got GPS signal.

● Step 4 Set master phone number

Send the command as the operation explanation to the SIM card number to set user's cell phone as master phone number.

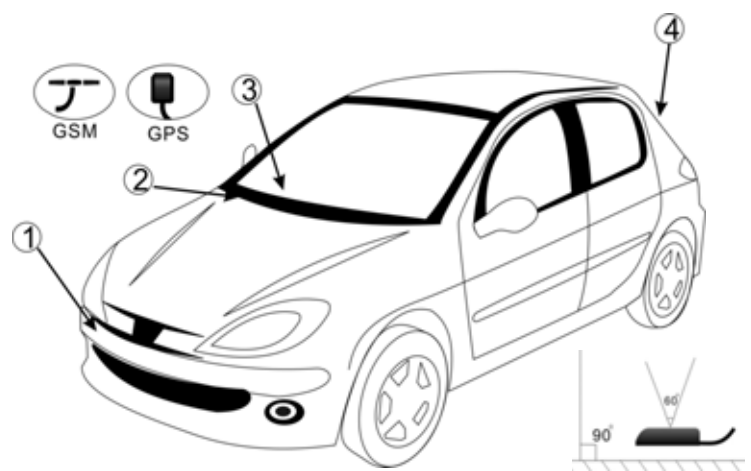
For example: user's cell phone number is 138000138000. The SIM card number in device is 13900139000. User send the SMS *master=138000138000:1234# to the number 139000139000.

After that, the device is ready to work.

2) Install to vehicle

Where I should place the main unit?

User could place the main unit any place you need, for example under the seat, in the trunk, or under the dash board. Our hardware is black and small size. It's easy for user to hide it in the car.



Are there any special thing notices on the antenna installation?

GSM signal is fine usually, and then you could put GSM antenna the place you like. But the GPS antenna need open to sky. So place it where as we suggested.

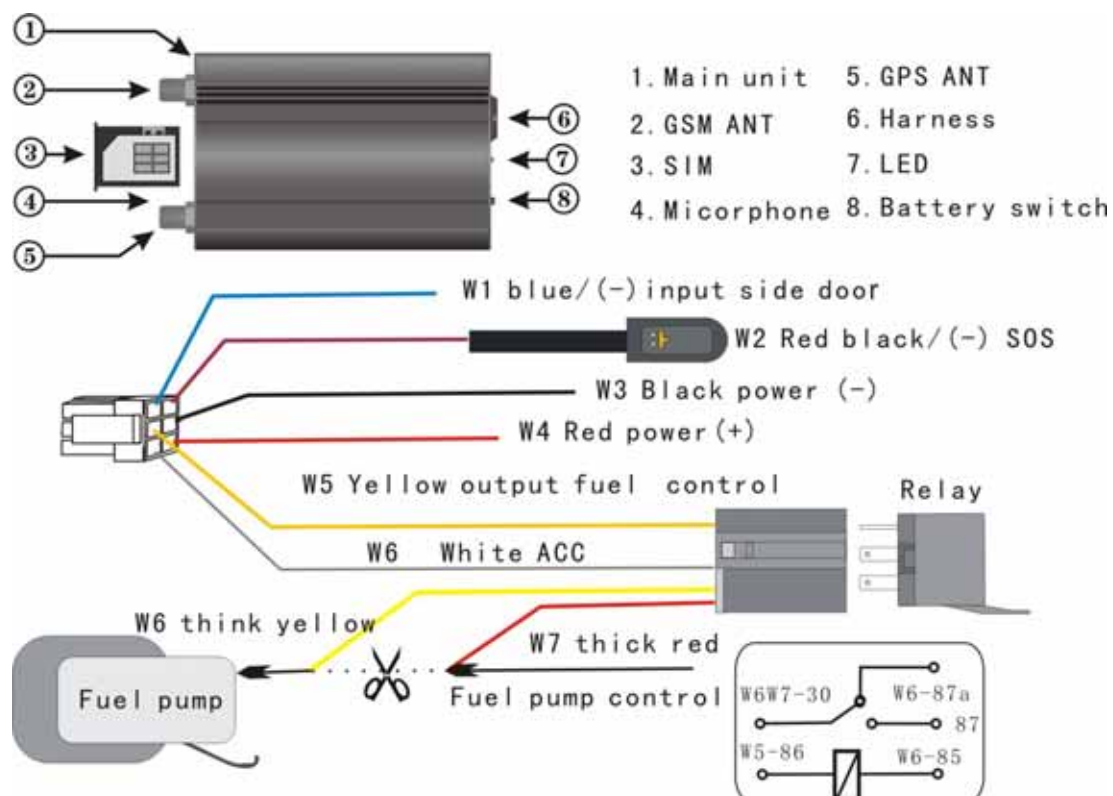
There are four places, please see the picture.

SOS button can save life!

User need to attach the SOS button where is easy to press. Then when he met some emergency like car crash or robbery, he could press the button immediately. The hardware will send out the message to the programmed numbers or server center to call for help. So please be careful to install this button.

3) Wiring diagrams and Physical

● 101B/C101B



4) Tips:

Immobilizer installation

Please find out the gas control line in the vehicle. And cut off this line and connect the relay as the wiring diagram. Please note the red line is close to the engine side and the black once close to gas pump side.

SMS Jammed

Sometime, too many short messages will be jammed in SIM card. So if there's no feedback. User could call the SIM card number first to see if there's communication.

The high building and cloudy weather will affect the GPS signal.

When I power on the device with internal battery, I found there's no power.

Please power the device with extra power DC12V with the battery switch on, then the battery will recharge. After it recharge 4 hours, power it only with battery. If still no power, please contact with local agent.

I got many zeros when I locate the vehicle.

That means there's no GPS signal. Please check as follow step by step. 1) GPS ANT install ready, do not connect it with GSM plug. 2) Put the GPS ATN outside and open to sky 3) Change another GPS ATN.

IV) SMS Operation

User operates the device by text SMS to device SIM card number.

Every command has same format: begin with *, end with #, the content is English word or letters. Please note all the commands need be typed in English and are not case sensitive.

Command format:

***Command (abbr.) =parameter1: parameter2#**

Different phone number has the different authority: master number and slave number. Master number can operate every function but slave number can not.

Some functions need the hardware support, if the command feedback is right but failed to operate, please check the connection as the wiring diagram.

1) Setting

- **C1 Set master tel No.**

Keyword: Master Msr

Command: *master=no:password# or *msr=no:password#

Description:

This is the first step to use the device. If the user's number is 13712345678; SIM card in the device number is 13712345670.

Example:

Sending: *master=13712345678:1234# or
*msr=13712345678:1234# (default password 1234.)

- **C2 Set slave tel no.**

Keyword: Slave Slv

Command: *slaveX=no# or *slvX=no#

Description:

Slave numbers is designed for other users of the same car. There are three slave numbers. Only the master phone number can set the slave number. If others number want to set the slave number, it will get the failed feedback: The sender must be master number. For example to set the second slave number.

Example:

Sending: *slave2=13712345672# or
*slv2=13712345672#

- **C3 Set password**

Keyword: Password Psd

Command: *password=old:new# or *psd= old:new #

Description:

This password is the key to communicate with device. It should have 4 numbers, default setting is 1234.

Example:

Sending: *password=1234:5678# or
*psd= 1234:5678 #

- **C4 Load default**

Keyword: Default Dft

Command: *default # or *dft#

Description:

When user want to clear all the settings in the device, this command is important. Only master number can send it.

- **C5 Restart**

Keyword: Restart

Command: * Restart # or *rst#

Description:

User could restart the device without clearing the setting with this command..

- **C6** Product S/N

Keyword: Sn

Command: * sn#

Description:

Product s/n is need when user wants to use GPRS and network.

- **C7** Set SMC number

Keyword: Smc

Command: * smc=no#

Description:

SMC (short message center), this number is for SMS service. User could check it with cell phone.

2) SMS locating and tracking

- **C8** Locate coordinates

Keyword: Position Pos

Command: * position# or *pos#

Description:

User sends SMS to locate the vehicle. The feedback is including coordinates, speed and a web link. User could get the position on Google map with the coordinates. Or he could use the link with cell phone to see the map. For more information, please refer to locate with Google.

Example:

22.572583,113.855972,0km/h.

<http://www.gogps.mobi/tracker.asp?lng=113.855972&lat=22.572583&key=550>

- **C9** Locate address

Keyword: Position2 Pos2

Command: *position2# or *pos2#

Description:

User sends SMS to locate the vehicle. The feedback is not coordinates but address. This function needs local agent support.

- **C10** Set tracking mode

Keyword: Track Trk**Command:** *track=n:m# or *trk=n:m#**Description:**

With this command, the device could send the position information automatically. User could set the interval as time or distance.

M=s, the interval is time, n=seconds. M in 30 seconds

M=d, interval is distance, n=meters. Min 300 meters

Example:

Command: *track=300:s# every 300 seconds, device send position back.

Command: *track=300:d# every 300 meters, device send position back.

3) Request Status

- **C11** Request Status

Keyword: Status Sts**Command:** * status # or *sts#**Description:**

User could use this command to request the status of the device. Power: 12.45 V, GPS: OK/no signal, ACC: Open/close, Door: Open/close, GSM Signal: Strong/weak.

4) Listening in

- **C12** set the listening-in number

Keyword: Listen Lsn**Command:** * listen=no:password# or * lsn=no:password#**Description:**

When user wants to listening in the vehicle, he could use master number to dial the device number. Second way is to use this command. Any phone numbers is available and after the device get the command, it will call to this number directly.

For example:

Sending: * listen=5553467:1234# users could listen in with number 5553467.

5) Fuel Control

- **C13** Fuel control

Keyword: Fuel**Command:** *fuel=n #**Description:**

This is command can help user to stop or disable the engine. When he doesn't want anyone to drive the car, or when he wants to stop the running car, he can use this command. The device

will cut off the gas to stop the engine.

Example:

Sending: *fuel=0# cut off the gas

Sending: *fuel=1# Resume the gas, this is default setting.



Warning: It is dangerous for user to stop the running car.

6) Alarm setting

C14 Set alarm

Keyword: Alarm

Command: *alarm=n#

Description:

There's several alarm reports go back to user's cell phone. And he could use this command to disable them all. If user only wants some of them, he could disable by different alarm command.

Example:

Sending: *alarm=0# Disable all alarm reporting, except SOS alarm and power alarm!



This command can not disable SOS alarm. SOS alarm will be send out in any settings

Sending: *alarm=1# Enable all the alarm reporting.

- **C15 Set defensive time**

Keyword: Defensive

Command: *defensive=n#

Description:

The device will be armed after 3minutes when ACC was off. User could set this time. N=minutes.

Notice: In armed status, the towing alarm, auto central lock, and side door wire trigger will be enabled. User could check the status with command *status#.

Example:

Command: *defensive=0# Disable auto arm function

Command: *defensive=2#

System will be armed in 2 minutes after ACC off

- **C16 Set anti-steal door trigger**

Keyword: Antisteal Asl

Command: *antisteal=n# or *asl=n#

Description:

In armed status, if some open the door without turn on ACC. The device will send out alarm. The default time is 120 seconds. This command is to set the door trigger.

Example:

Sending: *antisteal=0# Disable this function

Sending: *antisteal=120# Set the time as 120 seconds

- **C17** Antisteal input select

Keyword: Aslis

Command: *aslis=n#

Description:

Some user need the tracker device work with existing car alarm, For ET101B and ET007B, user could connect the blue wire(side door trigger) with the existing car alarm siren positive and send this command to redefine it. Then, when the existing car alarm siren beeping, the device will get the signal and send our alarm to user or server center.

Example:

Sending: *aslis=0# side door trigger

Sending: *aslis=1# existing car alarm

- **C18** Set over speed alarm

Keyword: overspeed Ovd

Command: *overspeed=n# or *ovd=n#

Description:

Sometime user need set a limitation to keep driver safety, For example young man who is driving dad's car.

Example:

Sending: *overspeed=80# limitation 80km/h

- **C19** Set towing alarm

Keyword: tow

Command: *tow=n#

Description:

In armed status, when the vehicle has been towed, the device will send alarm to users.

Example:

Sending: *Tow=0# disable this function (default)

Sending: *Tow=1# enable this function

- **C20** Set parking alarm

Keyword: Parking Pkg

Command: *parking=n#

Description:

User could set device to remind him how long time the car parked in one place. The number is

the time from ACC off to sending alarm. This function needs hardware support. If user doesn't connect the relay, he need connect the W6 white to ACC.

Example:

Command: *parking=60# after 60 minutes the car parked in one place, the device will send a alarm to user cell phone.

- **C21** Power off alarm

Keyword: Poweroff Prf

Command: *poweroff=n# or *prf=n#

Description:

There's internal battery in main unit. When someone cut off the power, the battery supply the power and device will send alarm report to user's cell phone.

Example:

Sending: *poweroff=0# disable this function

Sending: *poweroff=0# enable this function

- **C22** Low voltage alarm

Keyword: lowpower lpr

Command: *lowpower=n# or *lpr=n#

Description:

The device could check the vehicle battery. When the battery voltage is too low, the device will send alarm to user or server centre.

Example:

Sending: *lowpower=0# disable this function

Sending: *lowpower=0# enable this function

- **SOS** alarm

There's panic button for driver to call for help when he met the something emergency. When the driver presses this button for two seconds, the device will send an alert message.

- **Alarm** reports

All the alarm reports have the same format as below:

**113.4578,23.1456,60(km/h), SOS, Overspeed, Parking,Towing,
In-Geofence,Out-Geofence, Power Off,Custom1|2|3|4 Alarm**

Notice: In GPRS work mode, the alarm status will be stored till the device restart.

7) GEO fencing

- **C26** Out-GEO fence alarm

Keyword: outgeo

Command: *outgeo=n#

Description:

User could set a circle as the current position center. N is the semi diameter.

Example: *outgeo=1000#

Then the user set a 1kl circle with the current position as center. When the vehicle left the circle area, device will send alarm.

8) Extra Command

- **C27 Forward SMS**

Keyword: Forward

Command: *forward=content#

Description:

User could forward the SMS to other cell phone number and get the reply through the device. For example: *Forward=10086:cxcy# It can query bill of device SIM card in china

- **C28 Execute extended command**

Keyword: Execute

Command: *execute=command#

Description:

This command can execute extended command of device SIM card. In some countries, user could check the bill of device as below:

Command:*EXECUTE=*888##

V) Locate with Google

User could locate the device with cell phone directly. User could select three methods to get the vehicle position.

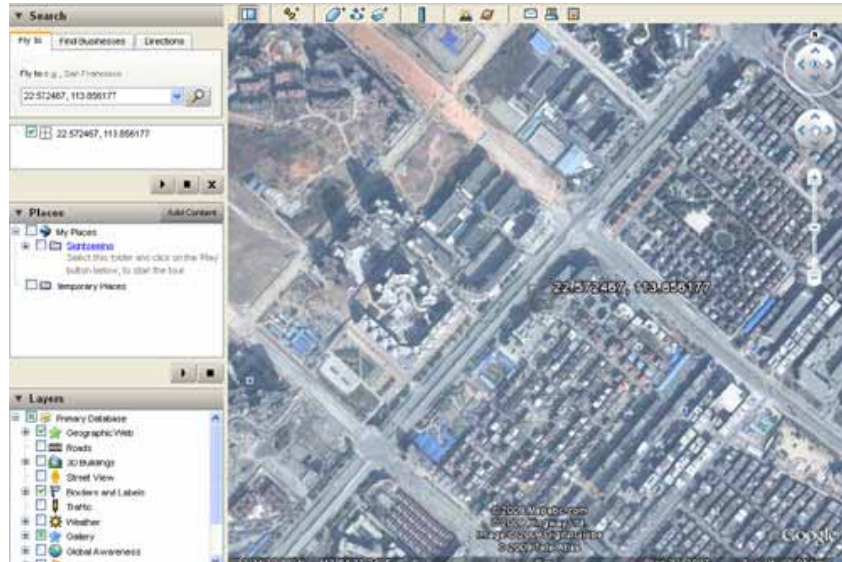
1. **Get the coordinates and look up in Google map or Google earth**

For example: when user sends the SMS *position# to the device, it will send feedback the as below:

22.572583,113.855972,0km/h.

<http://www.gogps.mobi/tracker.asp?lng=113.855972&lat=22.572583&key=550>

User could input the longitude and latitude to search the position as the picture. The position will be shown on the Google map.



User could see the website: map.google.com

Or download the GOOGLE EARTH software from <http://earth.google.com>

2. Get the address of the position

User could get the address of the position with the command *postion2#. He will not only get the coordinates but also the address in message. But this function need the local agent support, please contact with local agent for more information,

3. Track with cell phone on map

In the feedback, there's a link:

<http://www.gogps.mobi/tracker.asp?lng=113.855972&lat=22.572583&key=550>

If your cell phone supports internet connection, you could open this website. You will get a map with this position.



VI) Tracking with software

If user has many vehicles, he could select our software. We have four kind of software for different requirements. Please refer to software user manual.

1) Track with MapTrack_SA

Work mode: SMS

Hardware: PC, modem, tracker

Vehicle control Qty: 50

Map support: Google earth/MapInfo

Running cost: lowest/SMS charge



2)

Track with MapTrack_SB

Work mode: SMS/GPRS

Hardware: PC, modem, tracker

Vehicle control Qty: 100

Map support: Google earth/MapInfo

Running cost: lower/SMS/GPRS charge



3) Track with MapTrack_CS

Work mode: PC, workstation as server, tracker

Hardware: PC, modem, tracker

Vehicle control Qty: thousands

Map support: MapInfo

Running cost: GPRS Charge/IP address/server charge





4) Track with MapTrack_BS

Work mode: GPRS

Hardware: PC, workstation as server, tracker

Vehicle control Qty: thousands

Map support: Google map/MapInfo/Virtual Earth

Running cost: GPRS Charge/IP address/server charge

VII) GPRS setting v2.0B

C	Command	Function	Note
1	*sn#	get serial number	
2	*server=ip:port#	set IP address	=? Request setting
3	*work=n#	set work mode	=1 SMS, =2 GPRS =2a GPRS-TCP, =2b GPRS-UDP =? Request setting
4	*APN= xxx:user:psd#	set APN	=? Request setting

User need set the GPRS work mode when tracker works with software. All the following steps are after program the master number.

Step 1 Get s/n

Every product has s/n (serial number) which is need to register in software. Please note the last 8 characters of s/n.

Sending:*sn#

Step 2 IP and port

Example: IP is 211.154.139.226, port is 8868.

Sending:*server=211.154.139.226:8868#

Step 3 Work mode

The default work mode is SMS. User could send the command to change to GPRS mode.

Sending:*work=2#

Step 4 APN

What is APN? Access point name (APN) is the name used to identify a general packet radio

service (GPRS) bearer service in the GSM mobile network. The APN defines the type of service that is provided in the packet data connection. User could look up local APN from APN list from technology support or contact with operate.

Sending: *APN= xxx: user:psd #

VIII) SMS Command List v2.0B

***command(abbr.)=parameter1:parameter2#**

C	Command	Abbr	Function	Note
1	*master=no:psd#	msr	Set master number	
2	*slaveX=no#	slv	Set slave number	X=1,2,3
3	*password=old:new#	psd	Change password	default 1234
4	*default#	dft	Load default setting	
5	*restart#	rst	Restart	
6	*sn#	sn	Products S/N	
7	*smc=no#	smc	Set SMC number	
8	*position#	pos	Locate coordinates	
8a	*position2#	pos2	Locate address	local agent support
9	*track=n:m#	trk	Auto-track	n=0 disable n= seconds/meters m=s seconds; d meters
10	*status#	sts	Request Status	
11	*listen=no:password#	lsn	Set listening number	
13	*fuel=n#	fuel	Fuel control	=0 fuel off =1 fuel on
14	*alarm=1#	alm	Disable/Enable alarm	=0 disable =1 enable
15	*defensive=n#	dfs	Defensive set	n minutes
16	*antisteal=n#	asl	Antisteal door trigger	=n seconds default100 max255 =0 disable
17	*aslis=n#	ais	Antisteal input select	=0 door trigger =1 exsiting car alarm
18	*overspeed=n#	ovd	Over-speed alarm	=n (km/h) >20km/h =0 disable =1 enable
19	*Tow=n#	tow	Enable towing alarm	=0 disable (Default) =1 enable

20	*parking=n#	pkg	Parking time alarm	=n enable minutes MAX 255 =0 disable
21	*poweroff=n#	prf	power off alarm	=0 disable =1 enable
22	*lowpower=n#	lpr	low voltage alarm	=0 disable =1 enable
26	*outgeo=n#	ogeo	Out-GeoFence	n>= 500 meters
27	*forward=10086:cxcy#	fwd	Forward SMS	
28	*execute=*888##		Execute command	
29	*imei#		Get IMEI code	
30			alarm feedback	113.4578,23.1456,60(km/h), SOS, Overspeed, Parking,Towing, In-Geofence,Out-Geofence, Power Off,Custom1 2 3 4 Alarm

IX) Specifications

Size: 80mm*53mm*25mm

Weight: N.W 0.16KG G.W. 0.61KG

Commutation & Interface:

- 3x input ACC/SOS / DOOR CHECK/
- 1x output FUEL CONTROL
- Microphone

GPS Module

Chip: SRF Star III GSC3f/LP-7979

Frequency: L1 1575.42MHz, C/A code

Channels: 20

Update rate: 1Hz

Sensitivity: Tracking -159dBm | Cold start -144dBm

Acquisition Time

Hot start (Open Sky)<1s | Hot start (Indoor)< 15s

Cold Start (Open Sky)< 35s

Position Accuracy

Autonomous< 10m

SBAS < 5m

Max. Altitude< 60,000 ft

Max. Velocity<1,000 knots

GSM/GPRS Module

Baud: 850/1900 or 900/1800 or 850/900/1800/1900

Working Temperature: -30°C~+75°C

Max 2w(GSM850/EGSM900) Max 1w(GSM1800)

GPRS Class 10

CDMA Module

Baud: 800
Working Temperature: -30°C~+75°C
Max 0.25 W